

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A therapeutic composition useful for treatment of a ~~mucositis~~ oral mucositis as a side effect of cancer therapy at a mucosal site, the composition comprising:

~~N-acetylcysteine~~ at least one pharmaceutical substance selected from the group consisting of glutathione, a precursor for glutathione biosynthesis and combinations thereof, in an amount effective as formulated in the composition to provide therapeutic effect for ~~at least one of the prevention of the mucositis and treatment of the mucositis;~~

~~poloxamer 407~~ at least one biocompatible polymer that is different than the pharmaceutical substance;

a carrier liquid comprising water in an amount sufficient as formulated in the composition to interact ~~interacting with the biocompatible polymer poloxamer 407~~ to impart reverse-thermal viscosity behavior to the therapeutic composition, wherein the composition exhibits the reverse-thermal viscosity behavior over at least some range of temperatures between 1°C and 37°C.

2-14. (Cancelled).

15. (Currently Amended) The therapeutic composition of Claim 1, wherein the ~~pharmaceutical substance~~ N-acetylcysteine comprises from about 0.001 percent by weight to about 50 percent by weight of the composition.

16. (Cancelled).

17. (Currently Amended) The therapeutic composition of Claim 1, wherein the therapeutic composition exhibits the reverse-thermal viscosity behavior over at least some range of temperatures ~~temperature~~ between 1°C to 20°C.

18. (Cancelled).

19. (Currently Amended) The therapeutic composition of Claim ~~14~~8, wherein the biocompatible polymer, as formulated in the therapeutic composition, imparts a reverse-thermal gelation property to the composition with the composition having ~~has~~ a reverse-thermal liquid-gel transition temperature within a range of from 1°C to 37°C, so that the therapeutic composition gels as the temperature of the therapeutic composition is increased from below to above the reverse-thermal gel transition temperature.

20. (Currently Amended) The therapeutic composition of Claim ~~14~~8, wherein the amount of the water~~biocompatible polymer~~, as formulated in the composition, does not interact with the poloxamer 407 to impart reverse-thermal gelation properties to the composition.

21. (Cancelled).

22. (Currently Amended) The therapeutic composition of Claim ~~14~~8, wherein the ~~biocompatible polymer~~poloxamer 407 comprises from 5 weight percent to ~~20~~ 25-weight percent of the composition.

23. (Cancelled).

24. (Currently Amended) The therapeutic composition of Claim 1, wherein the ~~biocompatible polymer~~poloxamer 407 is dissolved in the carrier liquid when the composition is at a temperature of 5°C.

25. (Currently Amended~~Previously Presented~~) The therapeutic composition of Claim 24, wherein the ~~pharmaceutical substance~~N-acetylcysteine is dissolved in the carrier liquid when the composition is at a temperature of 5°C.

26-30. (Cancelled).

31. (Currently Amended) The therapeutic composition of Claim 1, comprising a bioadhesive agent that is different than the ~~pharmaceutical substance~~ N-acetylcysteine and the ~~biocompatible polymer~~ poloxamer 407.

32-34. (Cancelled).

35. (Original) The therapeutic composition of Claim 1, comprising at least one taste masking component.

36-37. (Cancelled).

38. (Original) The therapeutic composition of Claim 1, comprising at least one preservative component.

39-132. (Cancelled).

133. (Currently Amended) The therapeutic composition of Claim 1, wherein the therapeutic composition exhibits an increase in viscosity from no larger than about 60cP to at least about 70cP when a temperature of the composition is increased from 1°C to 37°C ~~over the range of temperatures~~.

134. (Currently Amended) The therapeutic composition of Claim 1, wherein the therapeutic composition exhibits an increase in viscosity from no larger than about 60cP to at least about 80cP when a temperature of the composition is increased from 1°C to 37°C ~~over the range of temperatures~~.

135. (Currently Amended) The therapeutic composition of Claim 1, wherein the therapeutic composition exhibits an increase in viscosity from no larger than about 50cP to at least about 70cP when a temperature of the composition is increased from 1°C to 37°C ~~over the range of temperatures~~.

136. (Previously Presented) The therapeutic composition of Claim 1, wherein the composition comprises reverse-thermal gelation properties with a reverse-thermal liquid-gel transition temperature within the range of temperatures.

137. (Currently Amended) The therapeutic composition of Claim 1, wherein the therapeutic composition comprises from 0.1 to 20 weight percent of the ~~pharmaceutical substance~~N-acetylcysteine and from 5 to 20 weight percent of the ~~biocompatible polymer~~poloxamer 407.

138-139. (Cancelled).

140. (Currently Amended) The method of Claim 137, wherein the therapeutic composition comprises about up to ~~up to~~ 10 weight percent of the ~~pharmaceutical substance~~N-acetylcysteine.

141. (Cancelled).

142. (New) The therapeutic composition of Claim 1, wherein:  
the therapeutic composition is adapted for delivery to a patient when the therapeutic composition is at a refrigerated temperature in a range of from 1°C to 10°C; and  
when the therapeutic composition is at the refrigerated temperature, it is in the form of a flowable medium with each of the N-acetylcysteine and the poloxamer 407 dissolved in the carrier liquid.

143. (New) The therapeutic composition of Claim 142, comprising from 0.1 weight percent to 25 weight percent of the N-acetylcysteine.

144. (New) The therapeutic composition of Claim 143, comprising from 5 weight percent to 20 weight percent of the poloxamer 407.

145. (New) The therapeutic composition of Claim 143, comprising from 10 weight percent to 20 weight percent of the poloxamer 407.

146. (New) The therapeutic composition of Claim 143, comprising up to 10 weight

percent of the N-acetylcysteine.

147. (New) The therapeutic composition of Claim 143, comprising about 10 weight percent of the N-acetylcysteine.

148. (New) The therapeutic composition of Claim 147, comprising from 10 weight percent to 20 weight percent of the poloxamer 407.